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AUTHOR Rubba, Peter A.
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ABSTRACT

Guidelines for research proposal preparation are presented to assist graduate students. The following components of educational research proposals are described: title page, introduction, methodology, schedule and budget, and bibliography or references. The introductory section enables the researcher to: define the study's purpose, review relevant literature, state research questions and hypotheses, and discuss the significance of the study. Preparing the methodology section requires consideration of the research design, data sources, experimental treatments, instrumentation, data collection methods, and data analysis methods. The degree of detail that should be included in the methodology section is dependent on whether enough information is provided for a reader to carry out the study. The schedule indicates when major events (e.g., those described in the methodology) will occur. For the budget, a two column format can be used to communicate anticipated research expenditures. Categorizing the items under major headings (e.g., instructional materials, travel) is helpful. (SW)

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GUIDELINES FOR EDUCATION GRADUATE DEGREE
RESEARCH PROPOSALS

Peter A. Rubba, Ed.D.
Division of Curriculum and Instruction
Pennsylvania State University
University Park, PA 16802

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GUIDELINES FOR EDUCATION GRADUATE DEGREE RESEARCH PROPOSALS

A research proposal is a plan of action for a study. In it, the researcher presents the problem to be studied, articulates why it is important for the problem to be investigated, and describes, in detail, how the problem will be investigated.

A researcher may prepare a research proposal for one or more of three main reasons: 1) to communicate the research plan to others who need to approve the study, 2) to communicate the research plan to individuals representing a group from whom funding is sought for the study, and/or 3) to act as a guide for the researcher during the course of the study. Graduate students typically prepare masters or doctoral degree research proposals for the first and third reasons. In any case, the researcher's goal in writing the proposal is to clearly communicate the need and nature of the study.

Educational research proposals prepared by graduate students commonly contains five components: Title Page, Introduction, Methodology, Schedule and Budget, and Bibliography or References. These components are described, below, under Roman Numerals I through V. Within each component the researcher must discuss certain essential aspects of the study. Those aspects are presented below as sections headings for the respective components, and described in one or more paragraphs. The researcher may re-order the sections within each of the five components, or combine sections, as long as the essential aspects of the study (described behind the various section headings, below) are explicated.

This set of guidelines for research proposal preparation should be used in conjunction with the style manual the researcher has selected and with the degree granting institution's guidelines for the preparation of theses and dissertations. Should conflict exist among the criteria stated in these three documents (e.g., placement of page numbers, double spacing of references) those stated in the latter should be followed.

It is suggested that the researcher write the proposal's text in either the present or future tense. Citations should be used throughout the text in accordance with the criteria stated in the selected style manual for quoted and paraphrased material.

I. TITLE PAGE:

Organize the title page as follows: 1) the title centered one-third the way down the page, 2) the researcher's name and affiliation centered one-half the way down the page, and 3) the phrase, "A Research Proposal Submitted in Partial

Fulfillments of the Requirements for the ----- Degree in Education," (or something similar) centered at the bottom of the page and followed by the date, also centered.

The conventions listed below may be of help in titling the research project:

- A. The title should be no longer than necessary;
- B. The title should clearly and concisely a) indicates key variable(s) under study, and any relationship sought between the variables, 2) name the subjects and 3) imply the setting and/or research methodology.

e.g., The Relationship Between Family Ordinal Position and IQ Among A Sample of Rural Mid-Western School-Age Children

II. INTRODUCTION:

The Introduction is where the researcher 1) defines the purpose of the study, 2) provides a review of relevant literature, 3) states any research questions and hypotheses, and 4) discusses the significance of the study. It is suggested that the Introduction be broken into the following sections.

- A. Purpose--This should be a simple, direct statement which designates the intent of the study (e.g., "The purpose of the study will be to....") Purpose statements are clearest if they a) indicate the key variable(s) under study, and any relationship sought between the variables, 2) name the subjects and 3) imply the setting and/or research methodology.

e.g., The purpose of the study will be to determine the opinions of parents in the Hillsdale Area School District toward competency testing in K through 12 grades.

In some cases the researcher may need to set-the-stage for the reader by providing background information and/or definitions prior to, or following, the Purpose Statement. If separate sections are created to do these, they should be labelled appropriately (e.g., Background, Definitions).

- B. Review of Literature--This is where the researcher reviews and analyzes prior studies, writings and other materials which form a foundation for the proposed study. Thoroughness and relevance are key words to be focused upon when selecting and reviewing literature. In writing this section the researcher must be careful to synthesize the literature, not just to compile it. Organizing the

literature on a theme or series of themes can contribute much to ease in writing this section and to clarity for the reader. The Review of Literature should end with a summary statement which directly implies the need for the study out of the literature.

It may not be appropriate to include a Review of Literature in the proposal for some types of expository studies (e.g., annotated bibliographies, reviews of literature). Instead, the researcher should provide background information on the problem prior to the Purpose Statement. Citations from the literature should be used extensively in the Background section.

- C. Research Questions--Here the researcher should list the specific research question(s) for which answers are to be sought. Each research question should be well-formed, in that it 1) names the variable(s), and any relationship sought between the variables, 2) names the subjects and conditions, 3) is stated as a question, and 4) is empirically testable.

e.g., What is the effect of supplemental peer tutoring, as opposed to teacher-guided supplemental tutoring, on the mathematics achievement of slower sixth grade students?

In some cases the researcher may wish to categorize the research questions (e.g., major, secondary, ancillary, subsidiary). Also, the researcher may wish to introduce the research questions with a sentence (e.g., "The study will seek answers for the two research questions stated below.") or paragraph.

- D. Hypotheses--A hypothesis cannot and need not always be stated for a research question. But, when a sufficient knowledge base exists to allow the researcher to do so, hypothesis should be stated (It is protocol to state a hypothesis for an experimental research question.). All hypotheses the researcher puts forth for testing should be testable answers to the respective research question. Whenever possible a one-to-one correspondence between research questions and hypotheses should be maintained.

e.g., There will not exist a statistically significant difference in ability to control variables between those general science students who received the formal instruction and those who received the concrete instruction.

It is recommended that the researcher introduce each hypothesis with a statement which makes clear the rationale or justification. This is the case whether the researcher elects to write a non-directional or

directional hypothesis.

- E. Significance of the Problem--A researcher must be able to justify (state the significance of) the research if it is to be considered worthy of study. In education, research is significant in regard to 1) its timeliness, 2) its relation to a practical problem of some importance, 3) its relation to a widely distributed population, 4) its relation to an influential or popular population, 5) because it will sharpen the definition of a concept or theory, 6) because it will fill a gap in our knowledge, 7) because it will correct faults in extant research, 8) because an instrument will be created which can be used in other studies, 9) because a prior study needs to be replicated, 10) etc., 11) a combination of the above.

The Significance is where the researcher states a written argument which justifies doing the study. In constructing the significance, the researcher should use as many of points stated above as possible. Each appropriate point of significance should be clearly stated in combination with supportive evidence and citations.

III. METHODOLOGY

This is where the researcher provides as much detail as possible on the procedures which will be used in carrying out the study. The acid test for the degree of detail which should be in the Methodology is whether it contains sufficient information for a reader to carry-out the study. Appropriate sections for the Methodology are presented below. In writing the Methodology be careful to maintain the boundaries delimited for these sections; however, remember that sections may be combined.

- A. Research Design--This section will only be present in proposals for experimental and ex post facto research. In it, the researcher should name, diagram and describe the application of the research design which will be used. The logic behind selecting the particular design as well as the internal and external validity threats to the design should be discussed.
- B. Sources of Data--In this section the researcher describes the subjects who (or which, should they be inanimate) will be used in the study. This should include descriptions of the population, the rationale for using the particular population, the sample/subjects selection procedures, and as complete a description of the sample as possible (e.g., numbers, demographics).

- C. Treatments--This section will only be present in proposals for experimental and ex post facto research. The aspects, facilities, personnel, and schedule of each treatment (including the control or comparison treatments) must be described in detail. A separate sub-section within the Treatments section might be established for each treatment and the control.

It is extremely important for the researcher to show that each treatment is consistent with accepted usage of the terms which are used to describe it and/or consistent with that described in a Definitions section. It is recommended that the lesson plans and/or materials which will be used in delivering each treatment be attached to the proposal as an appendix.

- D. Instrumentation--Each instrument which the researcher will use to collect data needs to be fully described, whether the instruments will be borrowed from another source or developed by the researcher. A full description would include: 1) the name and source of any instrument which the researcher borrows, 2) the reason the instrument was selected for use or the reason an instrument needs to be modified or developed, 3) a step-by-step description of how any instrument will be modified or developed, 4) a description of the instrument's content reference, format, and item type(s), 5) reliability and validity data on the instrument or an outline of how such will be established by the researcher, and 6) the scoring and score interpretation procedures.

If data will be collected on more than one variable in the study with one or more instruments, the correspondence between variable(s)/research question(s) and the instrument(s)/portions of instrument(s) needs to be made eminently clear. This might be accomplished by establishing sub-sections within the Instrumentation section--one for each variable or instrument. A copy of all non-standardized instruments should be attached as an appendix to the proposal.

- E. Methods of Data Collection--In this section the researcher needs to describe in detail how, when, where and by whom each instrument will be used to collect data. A chronological organization is suggested.
- F. Methods of Data Analysis--This is where the researcher describes exactly how, in terms of standard statistical procedures, the data will be analyzed once it has been collected. It is recommended that this section be divided into a sub-section, one for each research question, and

that the instrumental source of the data for each research question be clearly noted.

If the researcher is proposing to do expository research, the Methodology may be written as a continuous set of paragraphs without section headings. Still, these paragraphs should detail what will be done in carrying out the study. If the researcher is proposing solely to develop a piece of instruction (without testing its effectiveness, for example, in an experimental format), the Methodology should contain a step-by-step description of the instructional development procedures which will be used. In both cases the Methodology should address many of the same issues described above.

IV. SCHEDULE AND BUDGET:

This component of the proposal is to contain two sections, a Schedule and a Budget.

- A. Schedule--This should note when major events (e.g., those described in the methodology) will occur. A two column format (i.e., events, dates) works very well.
- B. Budget--A two column format (i.e., item) estimated cost, can be used to communicate anticipated research expenditures. Categorizing the items under major headings (e.g., instructional materials, photocopying, travel) is suggested.

V. BIBLIOGRAPHY or REFERENCES:

The title and structure of this component must conform to the requirements of the style manual the researcher has selected.